
## Hybrid Line-to-Ground Lightning Protection Assembly

The Model SSS-HBD1provides Line-to-Ground Lightning Protection on high voltage power and signal line pairs with a Line-to-Line voltage limit of 280 Volts DC or 198Vrms (AC) (i.e. High Voltage DC Switch Machine Power is one application).

### Highlights:

- Components are mounted to a printed circuit board that is form and fit compatible with a standard lightning arrester.
- High-Energy 20mm MOV with High-Energy Gas Tube Arrester Protection
- High-Energy Gas Tube Arrester provides air gap isolation
- High-Energy MOV eliminates any continuous follow through arcing of the Gas Arrester
- All components are UL Listed
- Robust and cost effective L-G Protection solution for high voltage signal, power and communication where continuous acring of the arrester is a concern .

### Features:

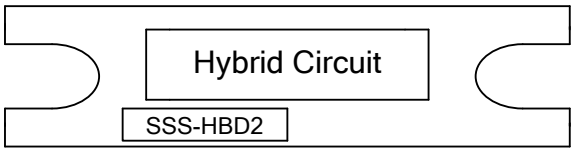
- Mounts on standard AAR terminal blocks (not supplied) with 2-3/8 in. center-to-center post dimensions (standard for lightning arresters) or any AAR terminal block strips that are positioned to accept a standard lightning arrester spacing
- Utilizes open slots at the ends of the circuit board for mounting flexibility and easy maintenance
- All copper traces are on the underside of the board to prevent accidental shorting
- Connection to the AAR Post is on the underside of the circuit board
- Used as Line-to-Ground (L-G) protection on Line Pairs whose Line-to-Line (L-L) Voltage does not exceed 280VDC or 198Vrms
- **Not** to be used for track-wire L-G protection

**Electrical Specifications:**

- Used as Line-to-Ground (L-G) protection on Line Pairs whose Line-to-Line (L-L) Voltage does not exceed 360VDC or 254Vrms
- Maximum continuous applied DC voltage (across the device) = 180VDC
- Maximum continuous applied AC voltage (across the device) = 127VRMS
- 1mA DC Conduction Voltage Range (steady energy applied) = 298 to 400VDC
- Peak Current Handling Capability = 10kA (8X20usec. Waveform)
- Energy Handling Capability = 100 Joules minimum
- Typical Capacitance = 1pF
- Operating Temperature = -40°C to +70°C
- DC Breakdown Voltage typical = 315 Volts
- Typical firing voltage for a 1000V/usec. transient is approximately 1100 Volts Peak
- Arc Voltage (across the device) = 182 Volts minimum
- Insulation Resistance = 1GOhms minimum
- Surge Life = 1000 minimum @500A (10X1000usec.)

**Dimensions:**

**Overall Circuit Board**
**¾ inch X 3 inch**




**Actual Size**

**Schematic :**